Claims

[c1] 1.A driving method of a liquid crystal display (LCD), the

LCD comprising:

an LCD panel, the LCD panel comprising:

a plurality of scan lines;

a plurality of data lines; and

a plurality of pixels, each pixel being connected to a cor-

responding scan line and a corresponding data line, and

each pixel comprising a switching device connected to

the corresponding scan line and the corresponding data

line; and

the method comprising:

(a) measuring reaction curves of the pixels of the LCD

panel switched from any gray scale value to other gray

scale values in a frame period, and generating a standard

table according to the reaction curves measured;

(b) measuring adjustment gray scale values of any gray

scale value for different gammas;

(c) generating a plurality of tables according to the ad-

justment gray scale values and the standard table;

(d) applying scan voltages to the scan lines;

(e) receiving image data from an image signal terminal;

(f) delaying the image data for a frame period in order to

generate delayed image data;

(g) selecting a table from the standard table and the tables according to gamma; and

(h) selecting an image data value from the selected table according to the current image data and the delayed image data and generating a data line voltage according to the image data value, applying the generated data line voltage on a corresponding data line.

[c2]   2. The method of claim 1 further comprising:

(i) generating temperature compensation signals according to temperature of the LCD panel; and

(j) selecting the table from the standard table and the tables according to the gamma and the temperature compensation signals in step (g).

[c3]   3. A driving method of a liquid crystal display (LCD), the LCD comprising:

an LCD panel, the LCD panel comprising:

a plurality of scan lines;

a plurality of data lines; and

a plurality of pixels, each pixel being connected to a corresponding scan line and a corresponding data line, and each pixel comprising a switching device connected to the corresponding scan line and the corresponding data line;

the method comprising:

(a) applying scan voltages to the scan lines;

(b) receiving image data from an image signal terminal;

(c) delaying the image data for a frame period in order to generate delayed image data;

(d) selecting a table from the standard table and the tables according to gamma; and

(e) selecting an image data value from the selected table according to the current image data and the delayed image data, and generating a data line voltage according to the image data value, applying the generated data line voltage on a corresponding data line.

[c4]   4. The method of claim 3 further comprising:

(f) measuring reaction curves of the pixels of the LCD panel switched from any gray scale value to other gray scale values in a frame period, and generating a standard table according to the reaction curves measured.

[c5]   5. The method of claim 4 further comprising:

(g) measuring adjustment gray scale values of any gray scale value for different gammas;

(h) generating a plurality of tables except the standard table according to the adjustment gray scale values and the standard table;

6. The method of claim 3 further comprising:

(i) generating temperature compensation signals according to temperature of the LCD panel; and

(j) selecting the table from the standard table and the tables according to the gamma and the temperature compensation signals in step (d).

[c6] 7. A driving circuit for driving an LCD, the LCD comprising:

an LCD panel, the liquid crystal panel comprising:

a plurality of scan lines;

a plurality of data lines; and

a plurality of pixels, each pixel being connected to a corresponding scan line and a corresponding data line, and each pixel having a switching device connected to the corresponding scan line and the corresponding data line; the driving circuit comprising:

a scan line driving circuit for applying scan voltages to the scan lines;

an image signal terminal for receiving image data;

an image memory for storing the image data and delaying the image data for a frame period;

a memory for storing a plurality of tables;

a selector for selecting a table from the plurality of tables according to gamma;

a look up table for selecting an image data value from the selected table according to the current image data and the delayed image data; and

a data line driving circuit for generating a data voltage

according to the image data value and applying the data voltage to a corresponding data line.

[c7]   8. The driving circuit of claim 7 further comprising a thermal sensor for sensing temperature of the LCD panel and generating temperature compensation signals according to the temperature, and the selector selecting the table from the plurality of tables stored in the memory according to gamma and the temperature compensation signals.